

A NEW SPECIES OF *AMMOPHILA* FROM NORTH AMERICA
(HYMENOPTERA: SPHECIDAE)

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A recent study of the subfamily Sphecinae has revealed the presence of a new species in the genus *Ammophila* W. Kirby from the coniferous woodland areas of the western United States. The name for this new species is being proposed to make it available for use in a forthcoming faunistic work on the sphecine wasps of Idaho.

Ammophila silvestris Kirkbride, new species

Holotype male.—Length 17 mm.

Color.—Black; tegula brown, red posteriorly; petiole tergum and gastral terga I and II red laterally, gastral sterna I and II entirely red; wing veins dark brown.

Vestiture.—Head with erect white hairs; mesopleura with faintly indicated band of appressed silver hairs ventrally along mesopleural suture (Fig. 1); metapleura with evenly distributed appressed silver hairs in area below transmetapleural line, and without such hairs in area above transmetapleural line; propodeal enclosure without erect hairs, but with sparsely placed appressed hairs.

Structure.—Clypeus with free margin arcuate, moderately emarginate medially; pronotal collar rounded longitudinally, smooth; scutum slightly rugose, with weakly developed irregular transverse ridges; episternal sulcus long; metapleural flange not lamellate (Fig. 2); propodeal enclosure with closely spaced transverse ridges laterally, interspaces smooth; penis valve with long basal spine.

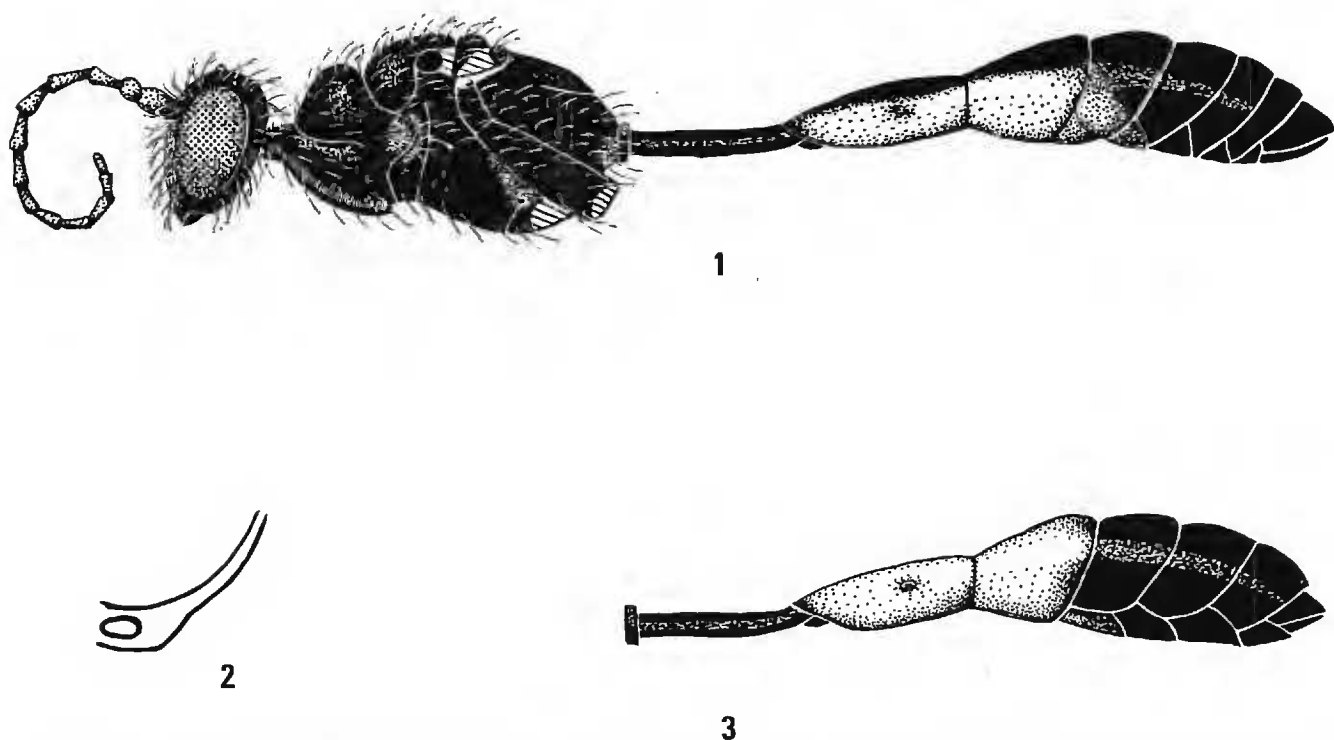
Allotype female.—Length 18 mm.

Color.—Black; tegula dark brown, red posteriorly; petiole tergum and gastral tergum and sternum I entirely red, tergum II red laterally; wing veins dark brown.

Vestiture.—Similar to holotype.

Structure.—Clypeus with disc moderately bulging, median free margin vaguely distinct, bounded laterally by a tooth; scutum with weakly developed, irregular transverse ridges; pronotal collar, episternal sulcus, metapleural flange, and propodeal enclosure similar to holotype.

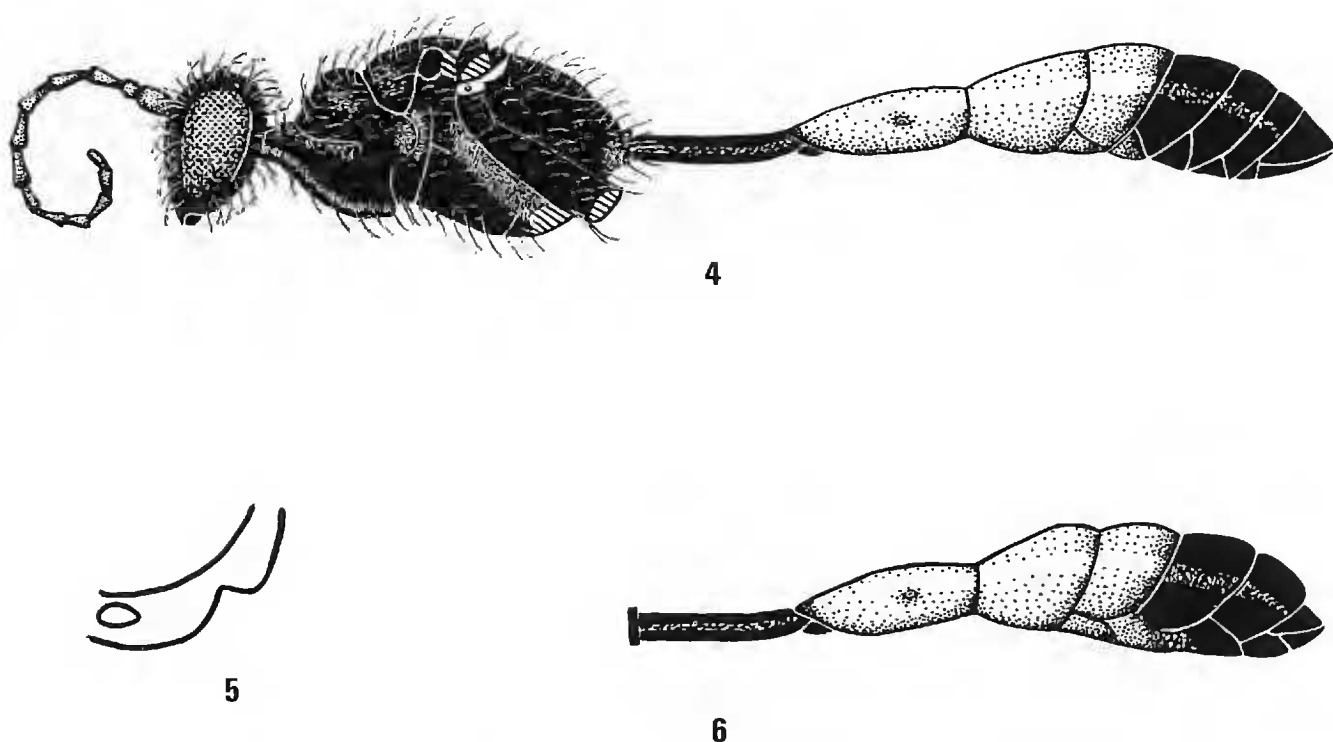
Types.—Holotype from: 21 mi. W. Lolo Pass, Idaho Co., Idaho, VII-28-



Figs. 1-3. *Ammophila silvestris* Kirkbride, new species. Fig. 1. Male, lateral view. Fig. 2. Metapleural flange. Fig. 3. Female abdomen, lateral view.

1976, D. M. Kirkbride. Allotype from: 0.2 mi. S. Plummer, Benewah Co., Idaho, VII-16-1976, D. M. Kirkbride.

Paratypes (33 males and 23 females) from the following localities: IDAHO: BEAR LAKE CO., 1 mi. N. Emigration Campgrnd., VIII-4-1976, D. M. Kirkbride. BLAINE CO., 15 mi. NW. Ketchum, VII-22-1961, A. R. Gittins. BONNER CO., 2 mi. SW. Granite, VII-21-1977, D. M. Kirkbride; Granite Lk., VII-4-1977, D. M. Kirkbride. BOUNDARY CO., 0.5 mi. W. MacArthur Reservoir, VIII-31-1976, D. M. Kirkbride. CAMAS CO., 13.3 mi. N. Fairfield, VI-18-1966, A. R. Gittins. CARIBOU CO., 1 mi. N. Gravel Crk. Campgrnd., VII-1-1976, D. M. Kirkbride. CLEARWATER CO., Elk River, VII-9-1962, A. R. Gittins; 3.5 mi. upstrm. frm. Washington Crk., N. Fork Clearwater Riv., VII-11-1977, D. M. Kirkbride; Skull Crk., N. Fork Clearwater Riv., VII-11-1977, D. M. Kirkbride; Elk River Reservoir, VII-9-1963, G. B. Hewitt. CUSTER CO., Redfish Lk., VII-21-1964, A. R. Gittins; 3 mi. E. Trail Crk. Summit, Pioneer Mts., VIII-17-1977, D. M. Kirkbride; Bonanza, VII-22-1965, W. F. Barr. FRANKLIN CO., 1 mi. SW. Emigration Campgrnd., VIII-2-1976, D. M. Kirkbride; 1.6 mi. SW. Emigration Campgrnd., VIII-2-1976, D. M. Kirkbride. IDAHO CO., 21 mi. W. Lolo Pass, VII-28-1976, D. M. Kirkbride; 25 mi. E. Lowell, VII-19-1964, A. R. Gittins. KOOTENAI CO., Cottonwood Crk., VII-21-1976, D. M. Kirkbride; Lane, VI-27-1962, A. R. Gittins. LATAH CO., Moscow, VII-20-1928. LEMHI CO., Meadow Lk., VIII-15-1977, D. M. Kirkbride. SHOSHONE CO., 7 mi. E. Clarkia, VII-18-1962, A. R. Gittins; Freeze Out Hill,



Figs. 4-6. *Ammophila azteca* Cameron. Fig. 4. Male, lateral view. Fig. 5. Metapleural flange. Fig. 6. Female abdomen, lateral view.

VII-18-1962, A. R. Gittins; 8 mi. N. Avery, VII-20-1969, D. S. Horning; 5 mi. W. Avery, VII-13-1958, A. R. Gittins; Roundtop, St. Joe Nat. For., VII-7-1960, A. R. Gittins; Wallace, VI-27-1918, O. Huelleman. TETON CO., 3.4 mi. SE. Victor, VIII-7-1976, D. M. Kirkbride; 3.2 mi. SE. Victor, VIII-6-1976, D. M. Kirkbride; 2.9 mi. SE. Victor, VIII-6-1976, D. M. Kirkbride. VALLEY CO., Boulder Mt., VIII-21-1952, S. E. Knapp; Yellow Pine, VIII-22-1955, H. C. Manis. MONTANA: MISSOULA CO., Lolo Hot Sprgs., VII-19-1963, W. F. Barr. WYOMING: TETON CO., Teton Cyn., West Side, Teton Range, VII-19-1964, R. L. Westcott. Holotype, allotype, and paratypes are deposited in the collection at the University of Idaho, Moscow.

Discussion.—An examination of the paratypes listed above has shown that gastral segment II is sometimes entirely black in males, while in females, the sternum of this segment may infrequently be entirely red. Furthermore, in both sexes, the band of appressed silver hairs along the mesopleural suture is not always visible, and the metapleural flange is rarely narrowly lamellate.

An initial examination of specimens in the U.S. National Museum of Natural History, and consultation with A. S. Menke clearly placed *Ammophila silvestris* in the complex of species associated with *Ammophila azteca* Cameron. The specific status of *silvestris* was subsequently determined by an examination of types, paratypes, and descriptions of the species in this complex.

Ammophila silvestris is most similar to *Ammophila azteca* Cameron, to which it is probably very closely related. In fact, in the revision of the North American *Ammophila* by Menke (1965), *silvestris* keys out to *azteca*. The absence of erect hairs on the propodeal enclosure of *silvestris*, along with the generally non-lamellate condition of the metapleural flange (Fig. 2) will usually, however, distinguish it from *azteca*, which has erect hairs on the propodeal enclosure and a broadly lamellate metapleural flange (Fig. 5). In addition, the band of appressed silver hairs along the mesopleural suture is either absent or only faintly visible on *silvestris* (Fig. 1), but is usually distinct on *azteca* (Fig. 4). These two species can also be separated by differences in gastral coloration. Males of *silvestris* usually have the first and second gastral terga red laterally and black dorsally, while in males of *azteca* these terga are usually entirely red. Females of *silvestris*, on the other hand, generally have the second gastral tergum black dorsally, whereas in *azteca* females this tergum is entirely red.

Habitat preferences are different between these two species. While *silvestris* has only been collected from habitats associated with coniferous forests, *azteca* is abundant in both the coniferous forest and desert habitats alike. The possible sympatric occurrence of these two species in forested areas has been verified by collections made from a number of localities in Idaho. Although the similarity in gross anatomy might imply that *silvestris* is simply a subspecies of *azteca*, their sympatric occurrence in forested areas indicates that these are in fact separate species.

Acknowledgments

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Literature Cited

- Menke, A. S. 1965. A revision of the North American *Ammophila* (Hymenoptera: Sphecidae). University Microfilms, Ann Arbor, Michigan, 247 pp.

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